

Freedom to Fuel: The (un) Necessary Rush to EVs in Delaware

Many states, like Delaware, are considering mandates that force the transition from Internal Combustion Engine (ICE) vehicles to Electric Vehicles (EV) through executive orders or, more likely, through adopting California's Advanced Clean Cars II regulations. As is often the case, many decision-makers have failed to consider the real-world implications of the mandates they are imposing. Even with significant federal and state incentives, EVs comprise less than 4% of sales and less than 1% of all the cars on the road in the First State. Assuming 50% annual EV sales growth each year, EV sales will only make up about 7.5% of all vehicles on Delaware roads by 2030. By 2035, EVs would still comprise only 25% of the cars on the road.

One of the expected drivers of EV adoption cited by proponents is the Total Cost of Ownership (TCO), which factors in all vehicle-related costs, including purchase price, fuel cost, insurance, and maintenance for the vehicle's lifespan. EVs cost significantly more than ICE vehicles, and the annual savings on fuel costs in Delaware is marginal, given the state's high electricity costs. With a projected useful life of less than 20 years for an EV, ICE vehicles make far more economic sense for working families. It would take the average driver an estimated 30 years to make up for the higher upfront costs of buying an EV. Bearing in mind that the average EV will require battery replacement between 10 - 20 years.

While the push to transition to EVs from ICE vehicles is an effort to shift to a low-carbon economy, the shift from a transportation system based on gasoline to one based on electricity is far more complicated and costlier than most decision-makers consider. Set aside the costs of upgrading an energy distribution system that cannot currently handle the projected loads an all-EV fleet would require. The cost of supplying the necessary energy for hundreds of millions of EVs via electrical generation is vastly underappreciated. Delaware will need over 3.3 billion more kWh of electricity annually to charge vehicles under a 100% EV mandate. This is equivalent to building another Indian River Station to provide this additional electricity. If this power were provided from offshore wind, Delaware would need another SkipJack wind project built off the coast just to power its EVs.

With EV adoption still accounting for single-digit percentages of the light-duty passenger vehicle fleet, the impact of moving from ICE to EVs on state budgets has historically been a relatively minor consideration. However, when Delaware implements EV mandates, officials will be forced to evaluate how this will lower fuel tax revenues. Without the current federal fuel taxes, Delaware will have to find \$190 million in new taxes to support its roads and transportation networks. Additionally, the state must replace \$130 million of Motor Fuel Tax Revenue collected each year. If well-off EV owners aren't paying these taxes, the additional tax burden will fall on middle-class families that can't afford to buy overpriced EVs right now.

Industry disruptions are often accompanied by substantial shifts in employment, whether the disruption is caused by market forces or mandated government policy. This can be either movement within a particular industry or significant job losses as a particular "losing" industry is forced out of existence. Under normal market conditions, these changes would be prompted by shifting consumer preferences, leading to relatively

gradual changes in capital allocation and, eventually, employment patterns. With abrupt government mandates, companies often take far less time and rapid, dramatic action to adhere to new realities. This can result in far more volatile employment changes and far more disruption for working-class families in particular industry segments. Thousands of family-sustaining jobs will be at risk in Delaware, including over 7,600 in the motor vehicles and parts dealer industry, about 3,500 jobs at gasoline stations, and almost 2,500 diesel engine specialists and automotive service technicians.

There is often a component of the debate over EV mandates that declares that the benefits of shifting the public to electric vehicles are helpful to working-class and lower-income families. But, often ignored are the direct impacts on the practical use of EVs for a working-class family and how the benefits of an EV transition mostly flow to the wealthier segments of the population. The initial EV purchase is not something that working-class families can often consider. The price differential between an EV and a comparable ICE vehicle is often on the order of \$15,000 or more. And contrary to popular opinion, the cost of EVs has been steadily increasing since 2015. Today, the average EV costs well over \$60,000, which can only be considered affordable by the upper quintiles of income earners. Under Delaware's Clean Transportation Incentive Program (DNREC), an incentive of up to \$2,500 will apply to new EV purchases. Since most EVs are only affordable to the wealthiest families, the state incentive will be a massive \$100 million cost shift from working families to the wealthy earning over \$150k/year. This is equivalent to taking over \$300 from every working family in the state and handing it to the wealthiest families who can afford to buy an EV under a Delaware mandate.

Charging infrastructure is a critical component for EV usage, with access to chargers (and specifically fast chargers) a major consideration in purchasing an EV. Wealthier users are far more likely to live in a single-family home where installing a fast charger costing thousands of dollars is simply a matter of fact. Lower-income families who are more likely to reside in apartments or rented properties cannot install their own personal dedicated fast chargers. As noted by MIT researchers, even the location of charging infrastructure tends to benefit the wealthier, whiter male demographic that makes up 75% of the individuals who purchase EVs. When available to lower-income communities, public charging typically costs more than home charging.

Questions You Should Ask Before Supporting a Delaware EV Mandate

1. If less than a quarter of the state will use EVs by 2035, why is it mandating them now?
2. Given the upside-down economics of ICE vehicles vs. EVs, why is the state government penalizing working families with no hope over time to make up for the higher cost of buying an EV?
3. Where will the state find the new generation that will be required to power our transportation systems under an EV mandate? And at what cost?
4. How will Delaware compensate for the lost tax revenue from fuel sales at the state and federal levels?
5. Have decision-makers even considered the devastating impact on the thousands of Delaware citizens whose jobs will be at risk under an EV mandate?
6. How do Delaware officials justify an EV mandate's disproportionate impact on low-income and working-class families, burdening them with higher costs and taxes?